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ABSTRACT

EQUALS is a teacher education program that helps elementary and secondary educators acquire methods and materials to attract minority and female students to mathematics. It supports a problem-solving approach to mathematics which has students working in groups, uses active assessment methods, and incorporates a broad mathematics curriculum presented in a variety of contexts. This document is one of a set of five Investigations Units and provides 7-8 graders with their first experiences with the links between algebraic formulas, geometric patterns, and data from measurements. In Remote Rulers students measure the apparent size and the actual sizes of an object as the distance from the object is varied. They plot these measurements on scatter diagrams, noting the resulting patterns of lines or curves, and explore graphs that represent algebraic relationships among coordinates, constant product, and constant ratio. Investigations sessions include: (1) Making Real People Smaller Than Your Thumb; (2) Measuring with Rulers at Arm's Length; (3) Group Investigation: Scatter Diagrams for the Algebraic Family XY=K; (4) Perspective Drawing Scatter Diagrams; (5) Group Investigation: Scatter Diagrams for the Algebraic Family Y/X=K; (6) Converting Pace and Stride Into Meters; (7) "How Far Is That Meter Stock?" Team Field Trials; (8) Motion and Perspectives; and (9) Sharing the Individual Projects. Also included are Spanish translations of selected student worksheets and a list of resources. (JRH)

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